INDEX---VOL. XXIV.

A.

American Gas-Light Association, Third Annual Meeting, Prof. Chandler's Address, 6.
Second day's Proceedings, 26.
Ditto ditto, 49.
Annual Meeting of New England Society of Gas Engineers. 136.
Action of Sulphuric Acid on Naphthaline. 250.
Acetylene Copper, Explosive Character of, 252.
An Alloy of Copper, Adherent to Glass, 9.
A New Cement, 11.
Accident at Utica Gas Works, 32.
An Accident in the Purification of Gas, 47.
Apparatine, 97.
Artificial Ivory, 98.
Allotment of Space at Centennial, 144.
Asphelt Pavement in England, 160.
A Forgotten Color, 160.
Accidents from "Non Explosive" oils, 160.
Accident at Providence Gas Works, 184.
Affidavits in Behalf of Trustees of Philadelphia Gas Works, 204.
Analysis of Caplidore (Scotch Cannel) Coals, 229.
" Natural Gas, 229.
Amount of Light Obtained from Coal, 244.
Asbestos, Exhibition of, 252.

B.

Baked Air, 33.
Beirut Water Works, 74.
Bridgeport Gas Co., 160.
Briggs Robert, Affadavit of, 162, 185,202.

C.

Crookes Radiometer, 53.
Coke Screenings as Fuel, 68, 90.
Cooking by Gas, 90.
Coal Gas (Dr. Kidder), 93.
Chemistry of Explosive Agents, 96.
Chrome Cement, 98,
Copying Ink, 121, 142.
Crookes Torsion Balance, 121.
Combustion of Coal Gas, 136.
Children's Hospital et. al, vs. Henry Bumm et. al. (Philadelphia Gas Co.), 162, 185, 202.
Condensation of Crude Gas (William Young, Scotland, 181.
Cost Price of London Gas, 201.
Cincinnati Gas Co., 160.
Cleansing Glass Vessels, 209.
Centennial Correspondence, 222.
Centennial Exhibition, Questions Settled, 228.
Composition of the Human Body, 228.
Construction of Wooden Buildings, 231.
Cement for Broken China, 251.
Conductibility of Gases, 252.

D.

Distance between Flame and Burner (Translated by T. H Muller), 2.
Discovery of Gallium by M. Lecocq and Boisbaudrau, 12.
Distillation of Coal Tar—Letheby, 24.
Distribution of Temperature on the Earth, 33.
Decision in case of "Non-Explosive" Oil, 75.
Dalton's Law, 77.
Diameter of Chimney Shafts, 98.
Diptheria, 99.
Delta of Mississippi (Barnard), 118.
Differential Compass (Ile's), 143.
Decision of Supreme Court in favor of Boston Gas-Light Co., 185,
Deodorizer—Chloride of Lead, 229.
Damages claimed for Injuries received from Explosion at a Lecture, 229.
Dynamite—Experiments with, 230.

E.

Electric Light Applied to Lighting Mills, 12.
Education of Mechanical Engineers, 33.
Eichholz's Patent Gas Process, 48.
Early Gas Lights (Mellville), 77.
English Channel Tunnel, 98, 158.
Emerald Green, 99.
Explosion at Gas Works in Holland, 200.
Estimating the Illuminating Power and Purity of Coal Gas (A. V. Harcourt), 207, 226.
Extinguishing Fires in Theatres, 223.
Explosion at the Capitol, 251.
Electric Light, New, 252.

Editorials—
Acknowledgement, 156.
A Suggestion Regarding Annual Meeting of American Gas Light Association, 134.
Anderson's Method of Purification, 24.
Cathel's Working Drawings, 200.
Coal Tar Products, 90.
Carbon in Retorts, 24.
Candle Feet, 243.
Circular to Gas-Light Association, 177, 221.
Death of Dr. Letheby, 156.
Early Efforts in Gas Lighting, 68.
Experimental Results. 156.
Elements of Physical Manipulation, 248.
Foul Lime, 112.
Foul Lime at Philadelphia, 155.
Gas for Heating Purposes, 67.
Gas-Making in Philadelphia, 155.
Gwynne-Harris (Correction), 24.
Hard Times, 178.
Hoisting Apparatus, 112.
How to Keep the Journal, 46.
Heat Units, 46.
Harcourt's (Mr. A. Vernon) Lecture, 199.
Illuminating Power, 111.
Literary Notices. 68.
Marked Down, 90.
Municipal Gas Co., 112.
Manhattan Co.'s New Scrubbers, 134.
New England Association Gas Engineers, 45.
Naphthaline, 133.
Prof. Chandler's Lecture, 2.
Public Gas in New York, 2.
Price of Gas, 45, 111.
Purification, 45.
Primitive Gas Warks, 90.
Righteousness Exalteth a Nation, etc., 111.
Reports of Operations, 156.
Results Obtained at Dresden, 243,
South Boston Explosion, 1, 23.
Salt Water for New York, 112.
Steam Turned On (Centennial), 199.
Sketch of Harrison McKinstry, 244.
The Amer. Architect and Building News, 46.
The Gas Interest at the Centennial, 67.
The Meeting of the New England Society of Gas Engineers, 89.
The Philadelphia Case, 177.
Van Nostrand's for January, 46.
Volume xxiii, 1.
Water Gas, 2.
Wood Gas, 178.
West of Scotland Association, 221.

F.

Future of Petroleum, 98.
Flesh Wounds. How to Treat, 98.
Foul Lime Purification, How to do away with its Nuisance, 113.
Ferry Boat Ventilation, 161.
Formation of Anthracite Coal, 252.

G.

Gas-Light Intelligence, 11, 32, 55, 76, 99, 120, 142, 160, 185, 228, 251,
Gas Explosion in Boston, 33.
Gas Legislation in New Jersey, 53.
Gas Fuel in Metallurgical Operations, 73.
Gas from mineral oil, tar, fatty and oily substances, 77.
Gas from cork, 77.
Gas Testing in Edinburgh, 77.
Gas Works Engineering, 96.
Griffith's Enamel, 121.
Gas in Dublin, 135.
Gold and Silver Inks, 161.
Gas Burners by John Patterson, 183.
Galvanic Deposition of Bismuth, 183.
Gas Supply of London (H. Chubb), 227, 248.
Gas for Kings County Buildings, 229.
Glasgow Gas, 229.

H.

Hydrogen as source of Heat and Light (Hoymann), 4.
Heavy Verdict against the City for Gas, 143.

I.

Influence of Gas and Water Pipes in Determining direction of a Discharge of Lightning, 95.
Invariable Weights, 100.
Illuminating Gas from Sewage, 134.
Insoluble Cement for Glass, 142.
Increased Water Supply for Philadelphia, 144.

K.

Kenawha Splint Coal, 122.
Kerosene a Cause of Diptheria, 185.

L.

London Water, 46.
Letter of Mr. Patton, replying to Mr. Allen, 32.
" Mr. Allen, replying to Mr. Patton, 54.
" Mr. Dwight (Lowe Process), 76.
" Mr. W. P. Fish (Lowe Process), 76.
Louisville Gas Company, 98.
Lighting London, 99.
Letter of Mr. Dwight (Lowe's Process), 120.
" Magnus Ohren, 120.
" Paine, Albett & Tripps. 120.
Light as a Symbol (Bishop Clarke), 140.
Letter of Mr. Allen in reply to Mr Dwight, 141.
" J. F. Antes on Naphtha Gas, 141.
" F. P. Hamilton. Flint, Mich., 142.
" Mr. Dwight in reply to Mr. Allen, 162.
" George B. Neal. 162.
" Mr, Allen in reply to Mr. Dwight, 185.
" A Reader on Wood Gas, 185.
Light Registering Machine, Automatic, 252.

M.

Manufacture of Sulphate of Ammonia from Gas Liquor—H. Letheby, 3.
Mellville's Gas Works, 1813, 92.
Modes of Lighting (Bishop Clarke), 97.
Metric System of Weights and Measures, 140.
Mucilage for Mineralogical Specimens, 142.
Moulding Fuel, 251.

N.

New Route to Liberia, 53.
New Glass Melting Furnace, 53.
New Treatment of Naphthaline, 53.
Naphtha as Fuel, 98.
Nickleizing Lightning Rods, 98, 121.
New Planets, 121.
Naphthaline, Solubility of, in Water, 142.
Novelties in Gas Manufacture, 159.
Neck vs. Feet and Wrists, 251.

O.

Olive Oil from California, 121.
On Sinking a Pair of Iron Shafts for an Experimental Amber Mine, 159.

P.

Patents issued Nov. 23 and Dec. 7, 1875, 12.
" " Dec. 14 and 21, 1875, 34.
" " Dec. 28, 1875, and Jan. 4, 1876, 56.
" " Jan. 4, 11, 18 and 25, 1876, 78.
Purification of Gas in Closed Vessels (George Anderson), 10, 71.

1028212

Photo Sulphide of Carbon, Discovery of, 12.
Price of Gas, 32, 122, 143, 165, 187, 209, 231, 252.
Petroleum as an Enricher, 54,
" Production of (H. E. Wrigley) 69.
" " " in Canada, 78.
Purification of Coke, 75.
Preserving Wood, 77.
Preparation of Lime Soap, etc., for making Gas, 77.
Patterson vs. The Gas Light and Coke Co., 115.
Position of Dry Gas Meters, 120.
Petroleum Vapor Flames Extinguished by Vapor of Chloriform, 122.
Platinum Paint, 142.
Penetrating Power of Different Colored Lights, 142.
Pumping Engine at Hull, England, 160.
Production of Silk in France, 160.
Poisoning by Carbolic Acid (Remedy), 160.
Public Lamps in New York, 185.
Prize for Improvement in Purification, 200.
Polytechnic Review, 222.
Preserving Plants with Colors, 228.
Portland Cement, Testing, 250.
Pumping Machinery, 251.

R.

Refuse Water from Cloth Manufactories, 5.
Rust removed from Steel, 48.
Report of Henry Woodall to the Leeds Gas Corporation, 55.
Revenue of Paris Gas Company, 77.
Rope Transmission of Power, 121.
Russia prohibits importation of Aniline Colors, 142.
Rheumatism cured by Ammonia, 161.
Resonant Alloys, 161.
Repulsion resulting from Radiation (W. Crookes) 180.
Report of Prof. Wurtz in Philadelphia Case, 205.
Rainfall in Schuylkill Basin, 208.
Rusting of Iron, 228.

S.

Street Loss Accounts, 10.
Sea Air and Mountain Air, 11.
Somerville on Street Loss, 32.
Spencer Process discontinued at Philadelphia, 32.
Softening Magnets, 33.
Springfield Gas Machine, 70.
Spontaneous Generation (Tyndall), 75.
Smoke, Generation and Characteristic, 75.
Shadow of Carbonic Acid Gas, 99.
Steel making among the Hindoos, 100.
Sugg's Illuminating Power Meter, 112, 222, 224.
Suffocation by Gas in Providence, 120.
Superheated Steam, 158.
Storage of Gas on Railways (Sugg), 160.
Signal Service, Value of, 228.
Safety Lamp, 229.
Street Lettering, 229,
Strength of Different Substances, 251.

T.

Tar Water used in Drying Silk and Wool, 33.
Testing Gas Burners, 55.
Terrestrial Magnetism, 70.
Tanning Skins to make them Supple, 77.
Test for Sulpho Carbonates, 77.
Transparency of Flame and of Air, 99.
Test of Kerosene Oil, 99.
Test Paper, New, 228.
Temperature and Health of Philadelphia, 230.

U.

United States Hoisting and Conveying Co., 114.

V.

Value of Topographical Surveys. 135.
Value of Coal Tar, 142.
Volatile Hydrocarbons detected by the Spectroscope, 142.
Velocity of Light, 223.

W.

Washing Smoke, 33.
Water Supply of Virginia City, Nevada, 33.
Waterproof Tissues and Paper, 53.
Water Traps and Soil Pipes, 73.
Water Consumed by Grain, 77.
Waterproofing Goods, 77.
Water for Bayonne, N. J., 97.
Waste of Water, 100.
Waterproofing Umbrellas, 142.
Whitewash, To Make, 160.
Wood Gas at La Porte, 161.
Wood Gas, Report of Drs. Ellet and Torrey, 178.
West of Scotland Association—Mr. Dunlop's Address, 246.